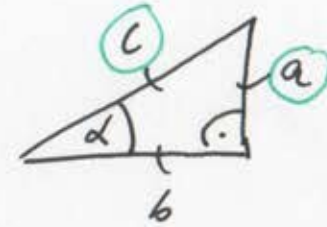
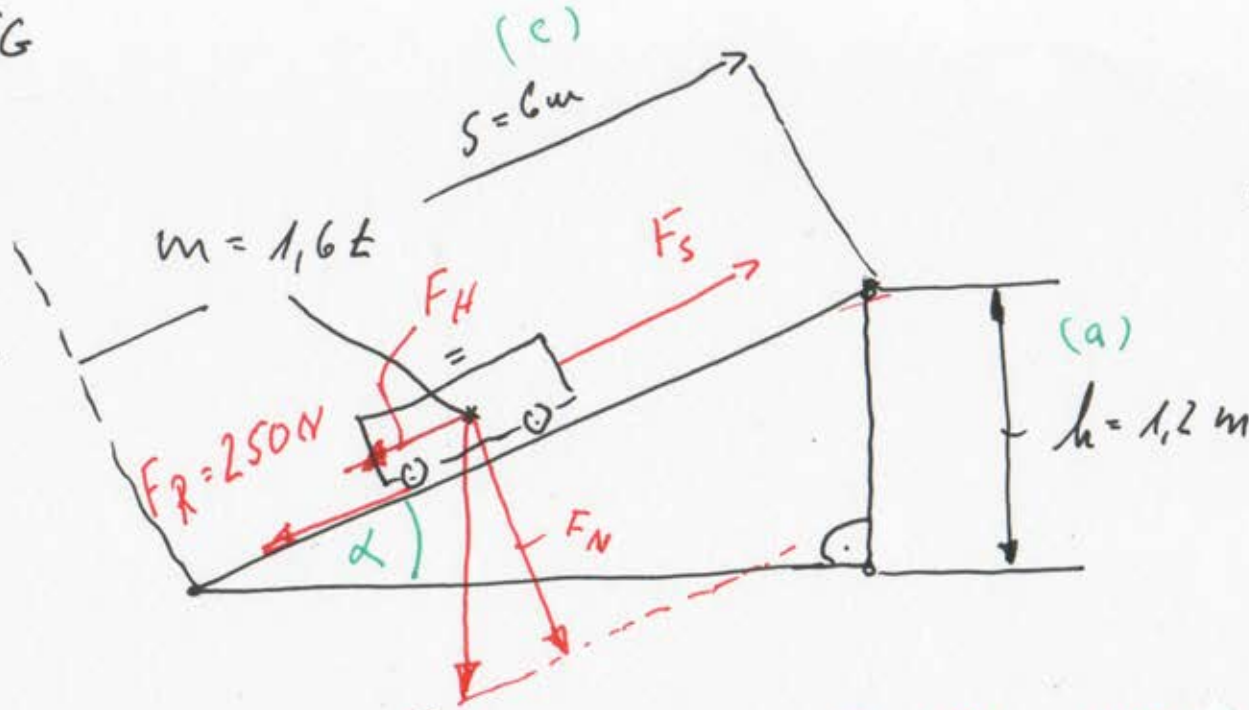


14-09-16 Aufgabe 4

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Bonus:

wie groß ist der Reibwert $\mu = ?$



$$\tan \alpha = \frac{a}{b}$$

$$\sin \alpha = \frac{a}{c}$$

$$\cos \alpha = \frac{b}{c}$$

$$\underline{F_G = m \cdot g = 1600 \text{ kg} \cdot 9,81 \frac{\text{m}}{\text{s}^2} = 15696 \text{ N}}$$

$$F_H = F_G \cdot \underbrace{\sin \alpha}_{0,2} ; \quad \sin \alpha = \frac{1,2 \text{ m}}{6 \text{ m}} = 0,2 \rightarrow \underline{\alpha = 11,54^\circ}$$

$$\underline{F_H = 15696 \cdot 0,2 = 3139 \text{ N}} ; \quad \underline{F_S = F_H + F_R = 15696 \text{ N} + 3139 \text{ N} = 18835 \text{ N}}$$